

Abstract

In a vehicle with bumper which is attached to the vehicle transverse to the longitudinal direction of the vehicle via a deformation element (10) the deformation
5 element (10) exhibits two first side walls (28, 30) that are spaced apart, and are joined to second side walls (40, 42) that are spaced apart.

The first and second side walls (28, 30, 40, 42) feature first and second grooves
(48a,b, 50a,b; 50a,b, 54a,b) that run transverse to the longitudinal direction of the
10 vehicle and are arranged in pairs opposite each other, each in a common plane. The first grooves (48a,b, 50a,b) extend over the whole breadth of the first side walls (28, 30) and the second grooves (52a,b, 54a,b) extend over only a middle part of the second side walls (40,42), leaving a region free at both edges. The first
15 grooves (48a,b, 50a,b) are arranged in pairs in first planes and the second grooves (52a,b, 54a,b) are arranged in pairs in second planes situated between two subsequent first planes.

The deformation element exhibits a high capacity for absorbing the energy of deformation on collision with the bumper, and leads to essentially symmetric
20 deformation.

(Fig. 2)